REMARKS/ARGUMENTS

Claims 1-20 are active in the case. Claims 9, 11 and 12 stand withdrawn from consideration. Reconsideration is respectfully requested.

The present invention relates to an electronic device that employs an epoxy resin composition as a protective material.

Claim Rejection, 35 USC 103

Claims 1-8, 10 and 13-20 stand rejected based on 35 USC 103(a) as obvious over Clayton, U. S. Patent 6,049,975; Goldner et al, U.S. Patent 6,982,132; JP 2001/2757 in view of Murai et al, U.S. Patent 6,437,090 and JP Nos. 58/187425 and 62/74919. This ground of rejection is respectfully traversed.

Applicants emphasize at the outset of their discussion that a very significant aspect of the invention is the specific formulation of the protective epoxy resin composition that is used. That is, the resin composition is a specific four component material of (a) an epoxy resin, (b) a latent catalyst consisting of a phenol compound and an organic metal compound, (c) a butyral resin, and (d) an inorganic filler. As stated in the paragraph that bridges pages 21 and 22 of the text, the applied resin composition exhibits the very desirable characteristic of being able to withstand repeated heating and cooling cycles without cracking unlike other conventional resin compositions and exhibits good adhesion and coating properties in comparison to other conventional epoxy resin coatings. The liquid epoxy resin composition employed in the invention is a one-liquid type and is free of the problem of storage stability. Further, it is reliable in its long term moisture resistance characteristic. Thus, the epoxy resin composition of the invention is effective in isolating a non-aqueous solvent based battery from electronic circuits adjacent the battery, thereby protecting the electronic circuits from solvent that may leak from the battery.

Applicants remain of the opinion that the cited references do not suggest the present invention as claimed. None of the references discloses or suggests the specific four component epoxy resin composition of the invention and none address the specific problem of protecting an electronic circuit from leaking non-aqueous battery solvent.

Clayton in columns 19 and 20 describes a method of protecting semiconducting devices by coating the devices with a protective overcoat material which, as described at column 20, lines 21-32, can be the likes of an epoxy resin called "Praleen" or a polyamide. However, there is no disclosure of what the formulation of the epoxy resin is, nor is there any mention of the specific problem solved in the present invention where the claimed specific epoxy resin formulation functions by preventing any contact of an electronic circuit with non-aqueous solvent that leaks from a near-by battery. It is not clear at all that if one of skill in the art were to use the "Praleen" epoxy of the reference that it would exhibit the protective ability of preventing contact with non-aqueous solvent that leaks from a battery, especially in the case where the problem which the present invention solves is not mentioned.

The disclosure of Goldner et al does not improve upon the deficiencies of Clayton. Goldner et al teaches a protective packaging material for a solid state lithium electrochemical cell. Packaging materials are described in column 13 of the patent and include the high vacuum epoxy resins, metal foils of aluminum or nickel, ceramics, glasses and polymers of various sorts. The packaging material is said to be useful in providing cell components with protection from atmospheric moisture and oxygen. However, again there is no specific teaching of the epoxy resin of the present invention which must comprise the four specific components set forth in the claims. There is no mention of the specific objective of the present invention of preventing contact of any non-aqueous solvent leaking from a battery with electronic circuitry which may result from weakening of the battery from repeated heating/cooling cycles. It is not clear on its face whether some epoxy resin that provides some

protective effect to electrochemical cell components from atmospheric moisture and oxygen would also be sufficient to protect electronic circuits from non-aqueous solvent that may lead from a near-by battery. Accordingly, the primary references of record are not believed to suggest the present invention.

The cited '425 and '757 references do not overcome or improve upon the deficiencies of the primary references. The '757 document discloses a liquid-sensitive resin for protecting and covering an electronic circuit. The reference discloses a liquefied photopolymer which is formed by the reaction of an epoxy group containing reactant and an ethylenically unsaturated compound such as a di(meth)acrylate monomer. However, the reference does not appear to teach or suggest an epoxy resin as presently claimed which contains the four components that are stated in the claims, although the reference does mention protection of electronic circuitry from leaking leaked electrolyte solution from a near-by battery [0001]. On the other hand, the epoxy resin composition disclosed in the '425 reference is formed by the reaction of an epoxy resin with a phenolic compound in the presence of β-ketoesteroaluminum compound. The reference states that the product exhibits excellent mechanical and electrical properties. Clearly, the reference does not teach or suggest the four component epoxy resin of the present invention, nor does it teach the purpose of the invention of preventing contact of electronic circuitry with electrolyte fluid that may leak from a near-by battery.

Finally, the '090 patent discloses a resin composition for the sealing of semiconductor devices. The liquid epoxy resin composition may contain a filler. However, the epoxy resin of the reference is not comprised of the four components of the present epoxy resin, nor does the patent mention the protection of electronic circuitry from any non-aqueous solvent that may leak from a battery. Other possible non-specific purposes of use are

mentioned, but not the purpose of the present invention. Accordingly, the claimed electronic device of the present invention. Withdrawal of the rejection is respectfully requested.

It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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